



County of McHenry County Administration

Cassandra McKinney
Water Resources Manager
2200 N. Seminary Avenue
Woodstock, IL 60098
Phone 815-334-4213 Fax 815-338-3991
www.mchenryh2o.com

Groundwater and Lawn Care

Cassandra McKinney,
Water Resources Manager – McHenry County Government

Did you know that in the United States, landscape irrigation accounts for almost half of residential water use in the summer? Or that a lawn sprinkler spraying five gallons per minute uses 50% more water in one hour than ten toilet flushes, two 5-minute showers, two dishwasher loads and a full load of laundry? How about pesticides and fertilizers... Have you ever thought about where all the excess fertilizer goes when it rains? Or what impacts these chemicals might have when they leave your lawn?

Often, many of us aren't aware of the negative effect of our actions. Thankfully, with lawn care, these effects are pretty easy to identify and reduce. So what are the effects? First, in McHenry County, we are solely dependent on groundwater and this resource is limited. Therefore, when watering our lawns we put stress the limited groundwater resource, which can reduce our drinking water supply. Second, our groundwater resource is vulnerable to contamination, and the fertilizers and pesticides that are used on lawns and gardens can sift through the soils and reach your drinking water supply. Finally, when it rains, our surface waters can be impacted by stormwater runoff. If this stormwater runoff is carrying pesticides or fertilizers, these can impact the aquatic life within the lakes, rivers, streams and wetlands that the stormwater enters. Two impacts that can be seen are algae blooms and fish kills.

Fortunately, when it comes to lawn care there are many different ways that we can reduce our environmental impacts, such as cutting back on our water usage and the amount of chemicals we use. First let's take a look at water use. Lawns only require about one inch of water per week to stay healthy and green. This fact alone means that if you are irrigating your lawn every day, you are probably using far more water than necessary. Furthermore, most lawn grasses will not die if you stop watering them, instead they will go dormant (dormant grass only needs ¼" to ½" of water every 2-4 weeks, a small rain shower should do the trick). Because of this, it is easy to save water and maintain a nice lawn. Purchase an inexpensive rain gauge to monitor how much you've used. A final simple tip to reducing water use is to adjust the lawn mower height. When mowing, ensure that the grass is no less than 3 inches long. Taller grass encourages deeper roots that can withstand drought and does a better job at outcompeting weeds.

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Now let's take a look at our chemical application habits. In America, we love a beautiful weed free lawn, and this lawn depends upon chemical applications of pesticides and fertilizers. However, once applied to the land, these chemicals can negatively impact our surface and groundwater resources. For example, when fertilizers reach our lakes and streams, they can cause the growth of aquatic plants, such as algae. When excessive algae blooms occur, the algae can deplete the amount of oxygen available for fish and other aquatic life, causing fish to die because of a lack of oxygen. Furthermore, once in groundwater, these chemicals can be costly and difficult to remove and may impact human health.

Some simple tips:

- Sharpen your mower blades at least every year to reduce damage to plants and save up to 22% of your fuel.
- Try to mow 1/3 or less of the total plant height at any mowing. Leave your grass 3" long to encourage deeper roots that will minimize weed pressure and a healthier lawn.
- Soils test your lawn to determine what nutrients your lawn actually need. Over-application of unnecessary nutrients can lead to impacts on water resources. Contact a lawn care professional, the University of Illinois Extension in Woodstock, or look online for a soil testing facility.
- Minimize nutrient runoff by reading the directions on the packaging, only applying what is necessary according to a soils test, and by double checking that your spreader is applying the correct amount.
- Leaving clippings of 1" or less on the lawn provides nutrients and improves the soil. This equals 1 lb of Nitrogen annually, reducing the fertilizer you will need to buy and apply. Check with your local Extension office for more information on proper nutrient application, including the preferred time of year.
- Avoid weed and feed mixes. Use only the product you need at the time you need it and in the quantity you need.
- If you water your lawn, remember the average lawn only requires 1" of water per week and the best time of day is early in the morning on days with little to no wind.

By altering a few simple habits, we can prevent unwanted chemicals and nutrients from getting into our water sources.

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